BANDWIDTH.COM

Greg Rogers
Deputy General Counsel
Bandwidth.com, Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 439-5399
grogers@bandwidth.com

November 9, 2011

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW Room TW-A325
Washington, DC 20554

Re: Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, PS Docket No. 11-153; Framework for Next Generation 911 Deployment, PS Docket No. 10-255; Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission's Rules, GN Docket No. 11-117; E911 Requirements for IP-Enabled Service Providers, WC Docket No. 05-196

Dear Ms. Dortch:

On November 8, 2011, John Murdock, President of Bandwidth.com, Ray Paddock, Vice President of Product and Emergency Voice Services, and I met with and presented the attached materials to: David Furth, Erika Olsen, Henning Schulzrinne, Patrick Donovan, Aaron Garza, Timothy May, Jerry Stanshine, John Healy, Dave Siehl, and Arturo Chang-Alves of the Public Safety and Homeland Security Bureau; and Amy Levine, Legal Advisor to Chairman Genachowski and Louis Peraertz, Legal Advisor to Commissioner Clyburn.

During our meetings we discussed Bandwidth.com's real-world experience with the state of Alabama's efforts to implement a Next Generation 911 network in the context of the Commission's open proceedings concerning emergency calling in a rapidly evolving Next Generation environment. Bandwidth.com shared some of the lessons learned thus far and issues that it believes the Commission should be particularly mindful of as it contemplates a national NG911 framework. Bandwidth.com also highlighted its role as a solution provider for Text-to-911 and provided its perspectives on what is technically achievable in the near term as the evolution to Next Generation 911 networks occurs. Bandwidth.com expressed its support for the Commission's efforts to deploy the most effective Next Generation emergency services that are reasonably achievable as quickly as possible.

Sincerely,
/s/ *Greg Rogers*

Greg Rogers

cc: David Furth
Erika Olsen
Henning Schulzrinne
Patrick Donovan
Aaron Garza
Timothy May
Jerry Stanshine
John Healy
Dave Siehl
Arturo Chang-Alves
Amy Levine
Louis Peraertz,

NG9-1-1 Implementation
Near-Term Text to 9-1-1

Meeting Goals

- Communicate our strong support for FCC initiatives
  - inetwork also seeks to accelerate deployment of effective NG9-1-1 and a near-term text to 9-1-1 solutions.

- Share initial insights into specific, real-world challenges and recommended actions

Specifically….

Factors Impeding Progress

- Ambiguities around legal authority and governing structure of 911 Agencies
- Unnecessary costs:
  - Carrier evolution to NG9-1-1
  - PSAP evolution to NG9-1-1
- Established 9-1-1 System service providers

NG911 Case Study - ANGEN

- Contracting entity: Alabama Wireless Board
- Timeline
  - RFP issued 11/1/10
  - Responses due 1/14/11
  - Selection of inetwork on 7/6/11
  - Implementation??
- 3 year agreement

NG911 Case Study - ANGEN

- Funding - initial
  - Federal DOT matching grant
  - Reallocation of wireless 9-1-1 Funds
- Funding – long term
  - Wireless 9-1-1 funds
  - Proportionate contribution from wire-line

Project multi-Million dollar savings for Alabama annually!

Standards Based

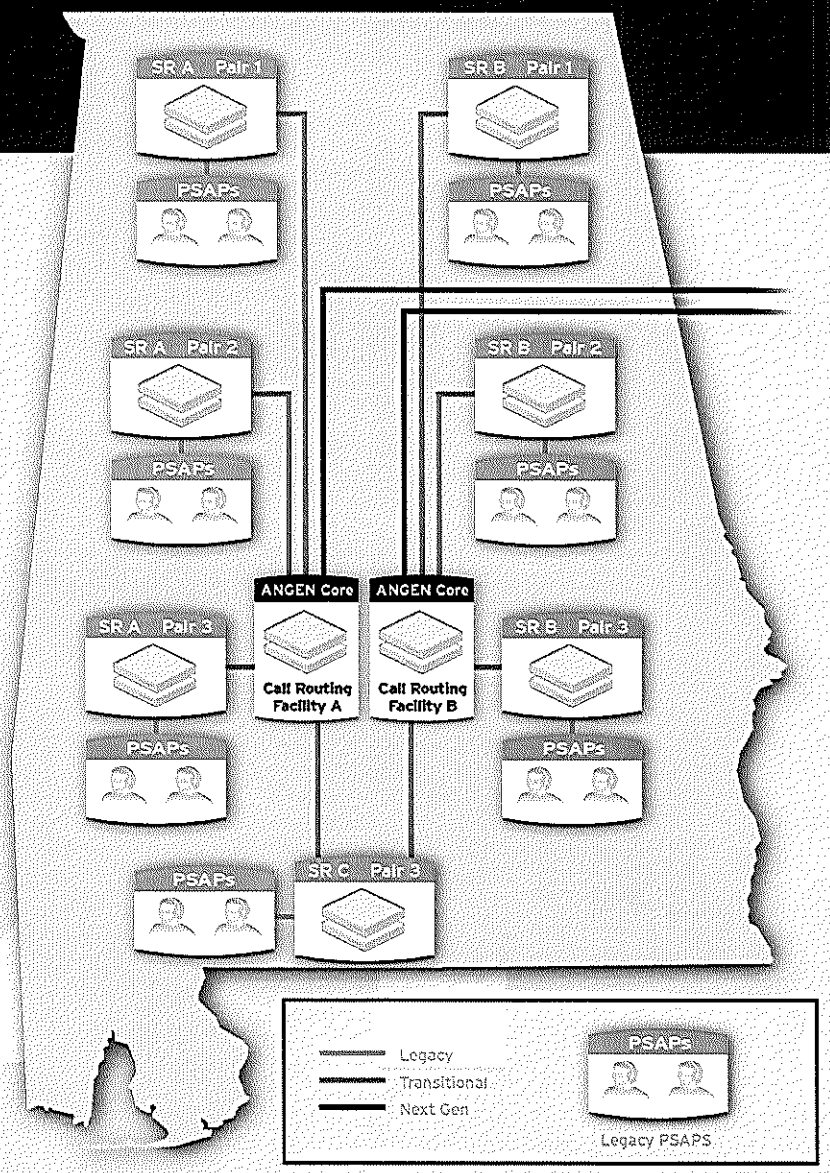
- Underlying IETF standards
- NENA NG-SEC Document 75-001
- NENA i3 Technical Requirements Document 08-751
- NENA Detailed Functional and Interface Standards for NENA (i3) Solution Stage 3 08-003

Phased Implementation

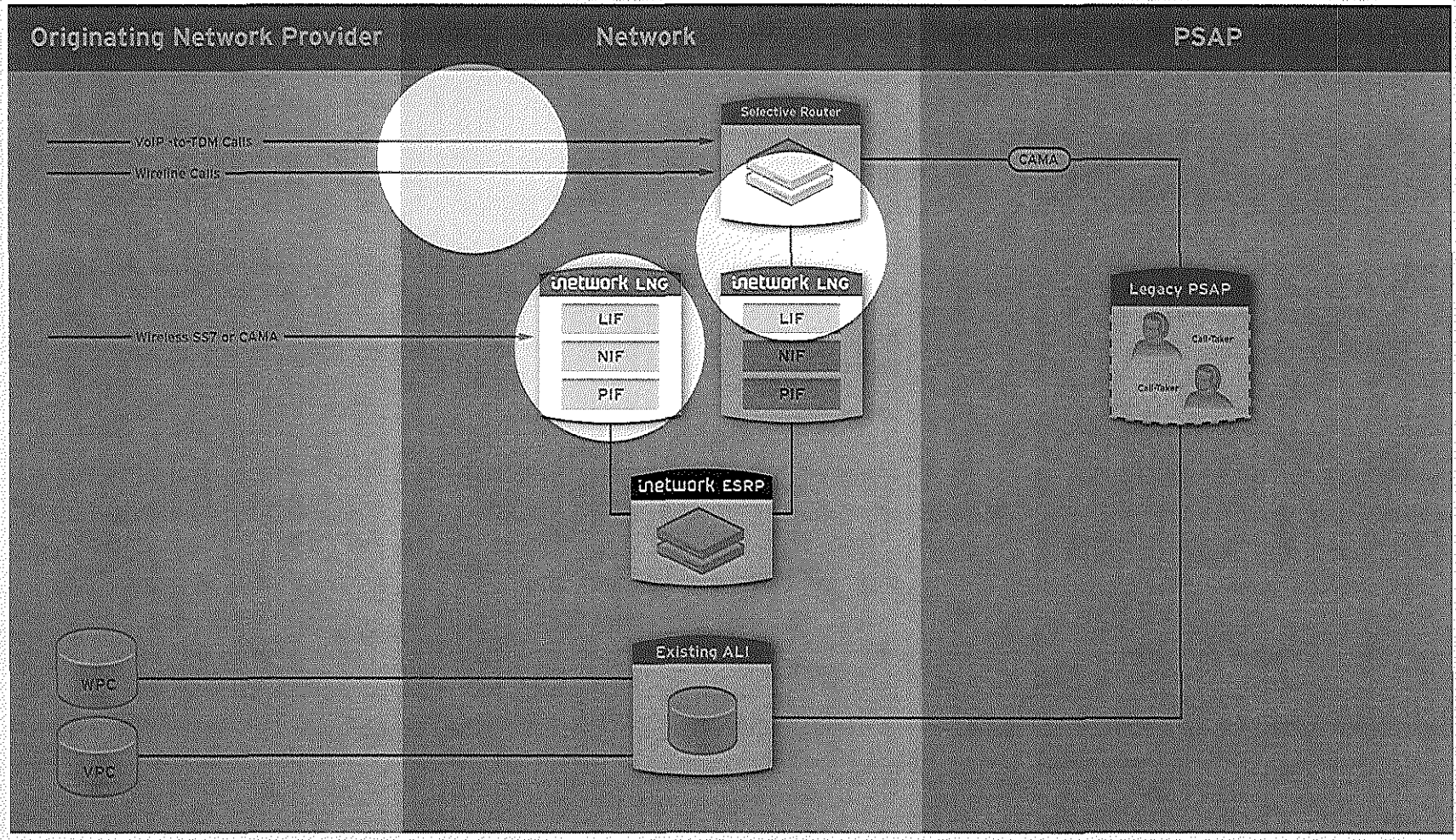
Phase	Carriers	Call Delivery	Approximate Duration
1	Wireless only	Through current selective routers	6 months
2	Wireless only	Through both selective routers and the ASA ESINet	12 months
3	All	Through the ASA ESINet	12 months
4	All	Through the ASA ESINet	6 months

Phase 1
Implemented by end of month 6

NG9-1-1 Routing, Delivery Through Existing SRs

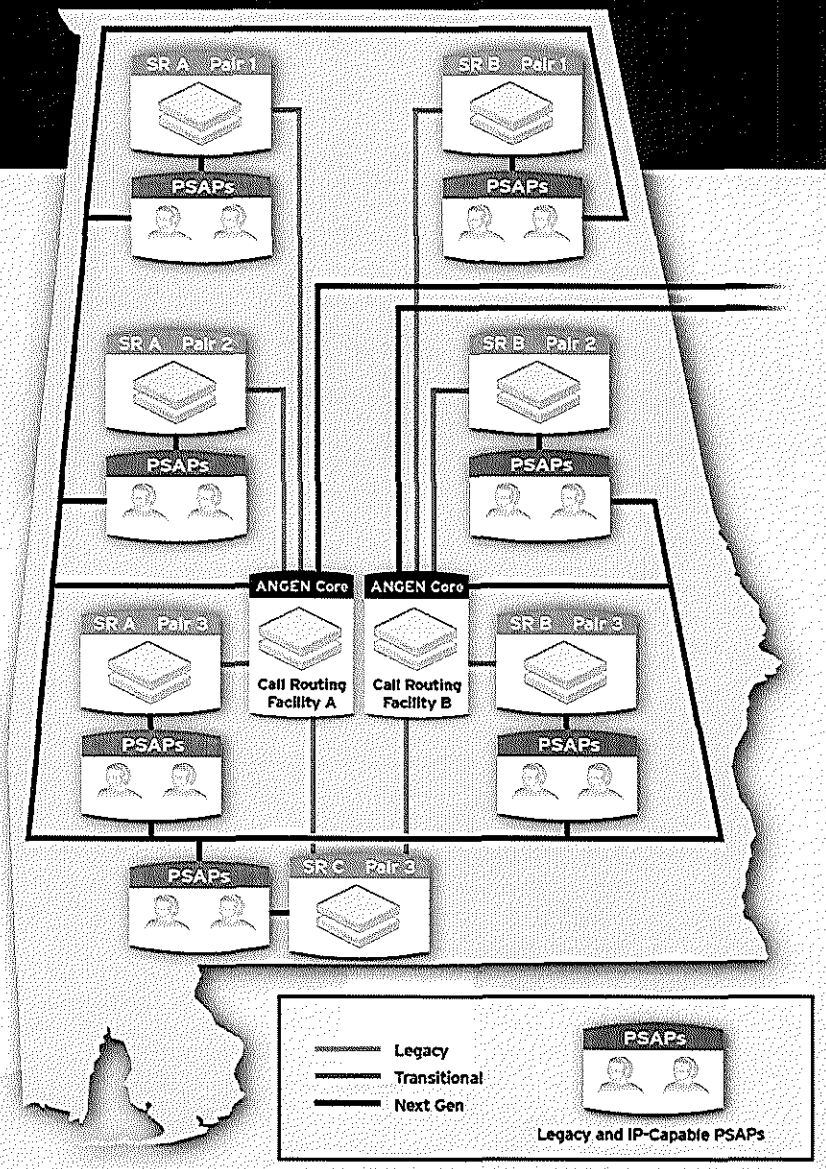


Phase 1 Routing

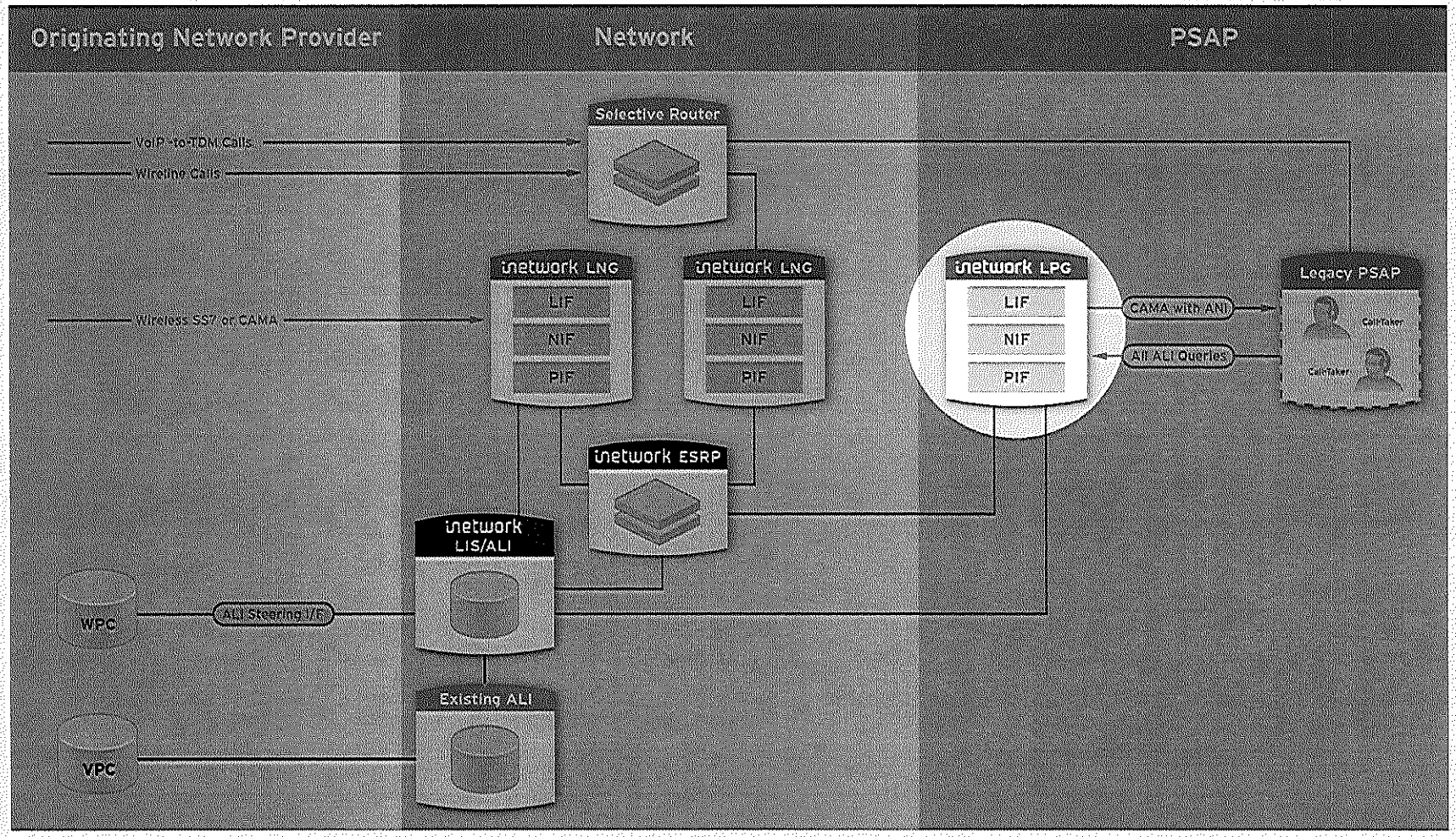


Phase 2
Months 6 to 18

NG9-1-1 Routing, Hybrid
Call Delivery42

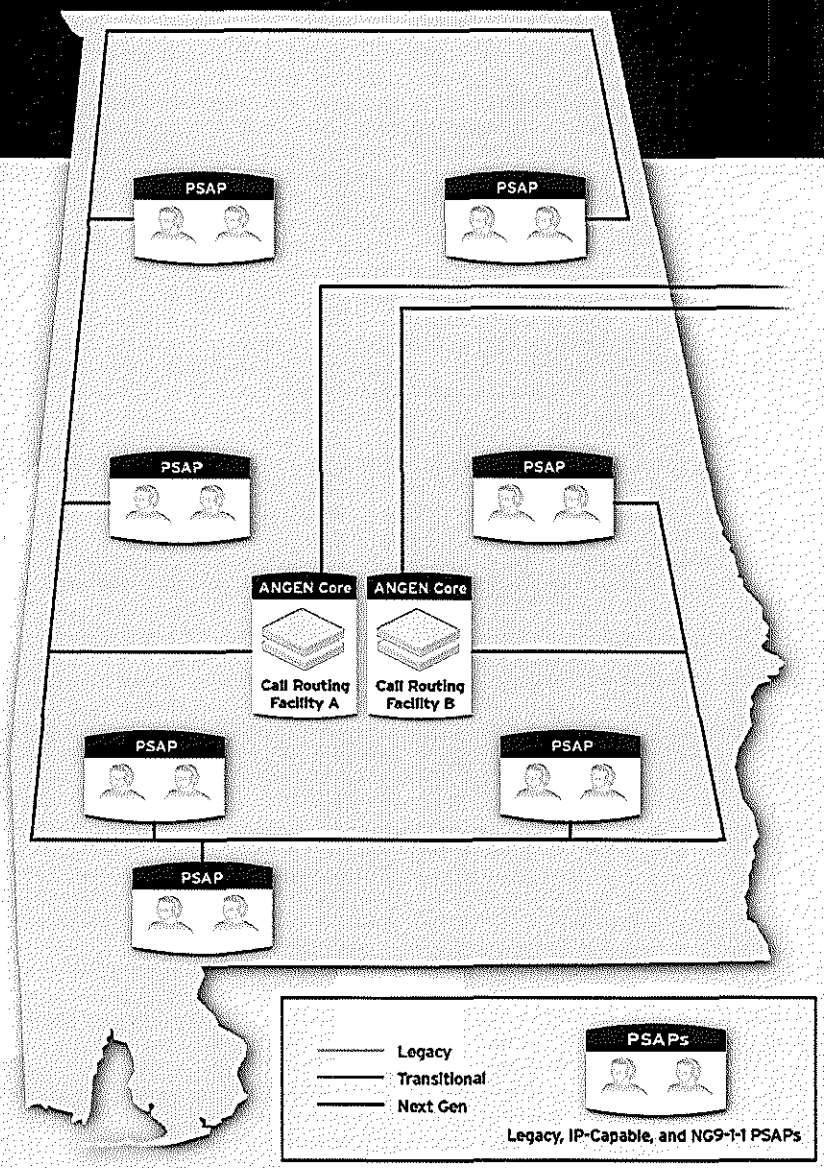


Phase 2 Routing

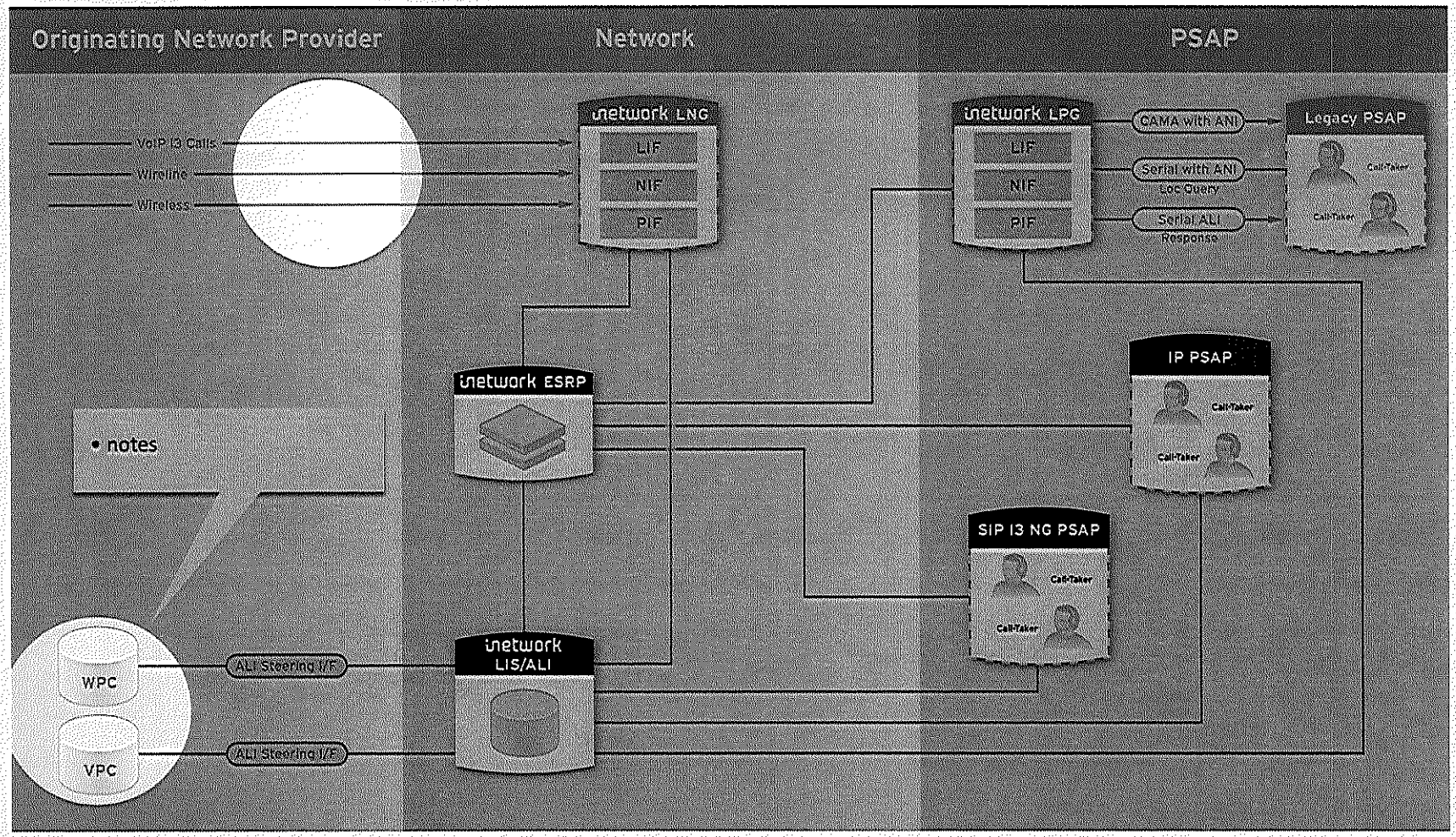


Phase 3
Months 18 to 30

Full NG9-1-1 Using Transitional Components

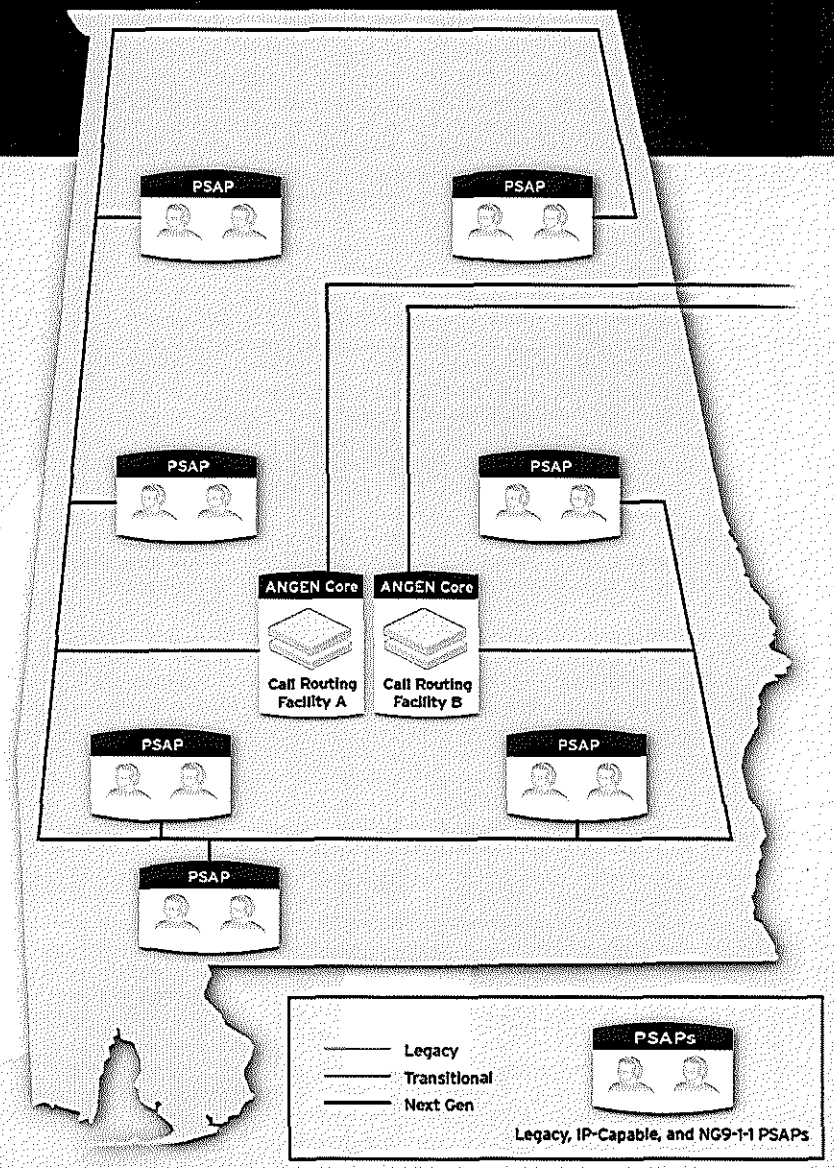


Phase 3 Routing

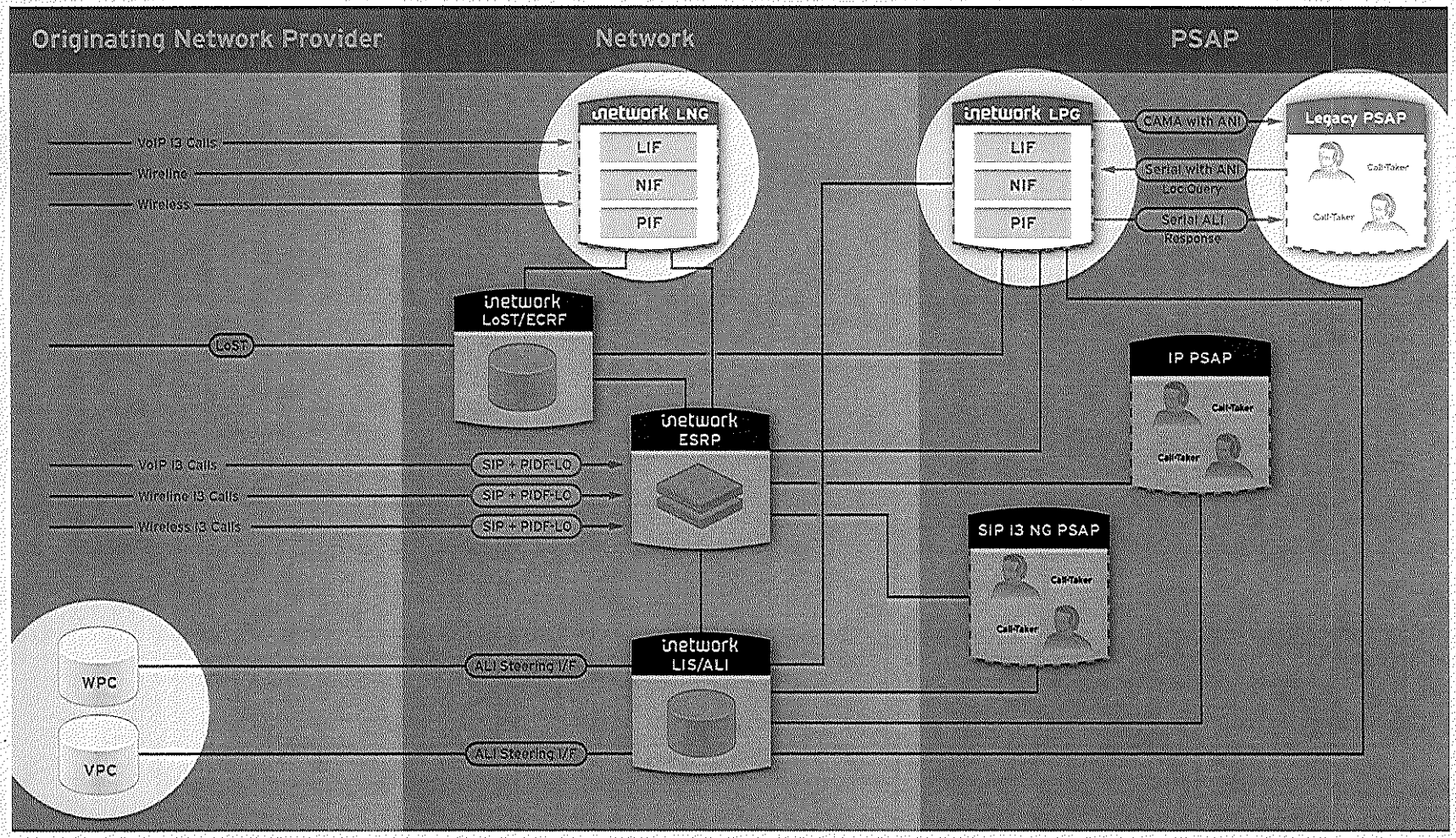


Phase 4
Months 30 to 36

Full NG9-1-1



Phase 4 Routing



Winning and Implementing a NG9-1-1 System

	Alabama	Maine	Connecticut
Contracting body	Wireless Board	Unified Board	Unified Board
Contracting for	Routing only	Routing, ESInet, CPE	Routing, ESInet, CPE a la carte
Contract process	RFP	RFP	RFP (multiple)
Financial structure	Non-recurring and recurring charges	Only recurring charges	Non-recurring and recurring charges
Source of funds	Initially DOT Grant and wireless 9-1-1 fees then contribution from wire line	9-1-1 fees	TBD

Recommended FCC Action

- Implement federal program that includes guidance to the states to achieve most effective NG9-1-1 governing structure.
- Set timeline for native NG9-1-1 support:
  - For carriers;
  - For PSAP CPE
- Establish clear transitional guidelines for established 9-1-1 System Service Providers.
- Develop funding mechanisms to support state-level migration to NG9-1-1.

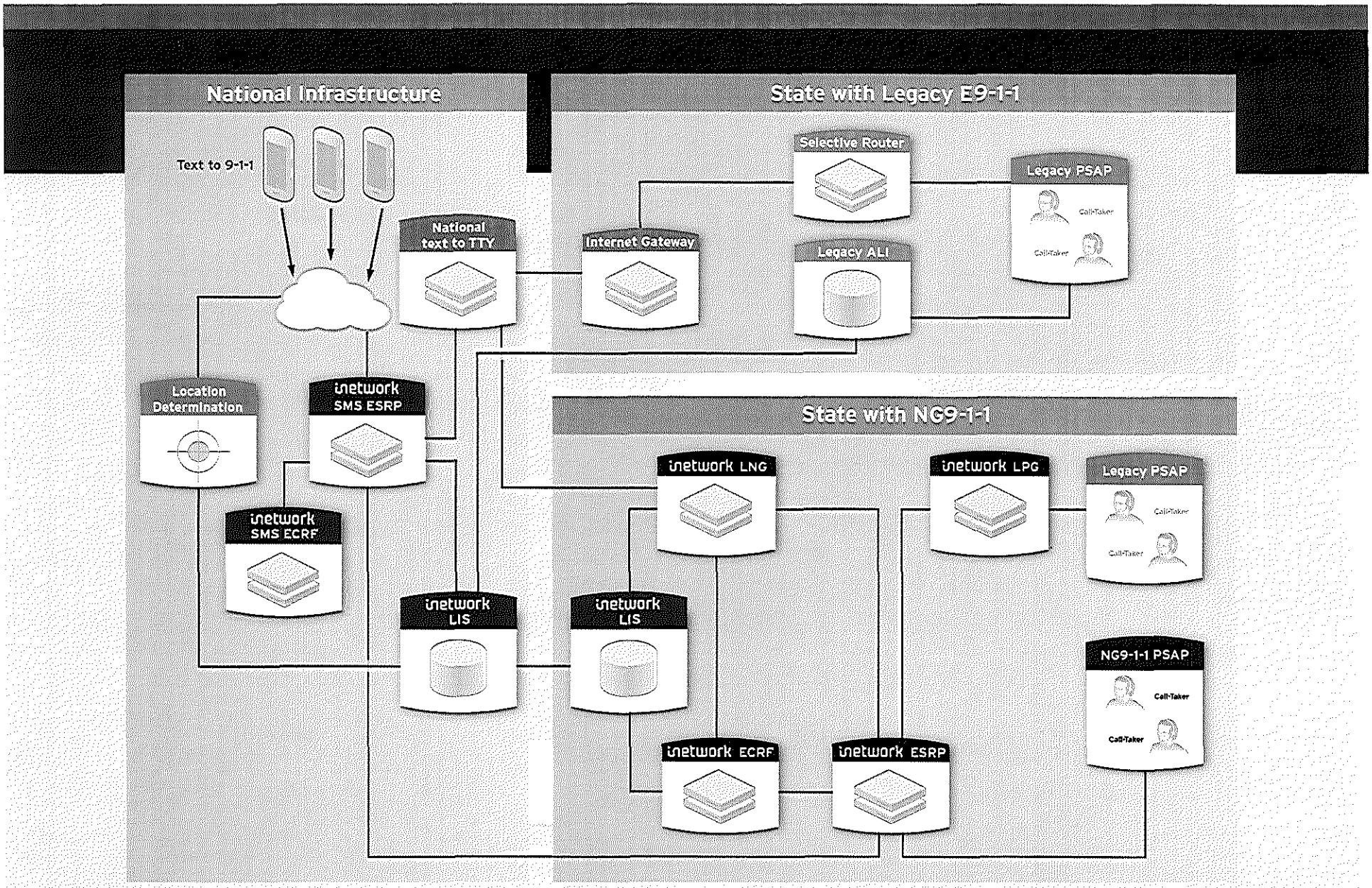
NEAR-TERM TEXT TO 9-1-1

Proposed Objectives

- Deliver Text & Location
- Accommodate all PSAPs regardless of NG9-1-1 readiness
- Require minimal investment by Wireless Carriers.
- Enable both integrated and "Over the Top" Texting
- Nationwide coverage on day 1
- Natural evolution to NG9-1-1

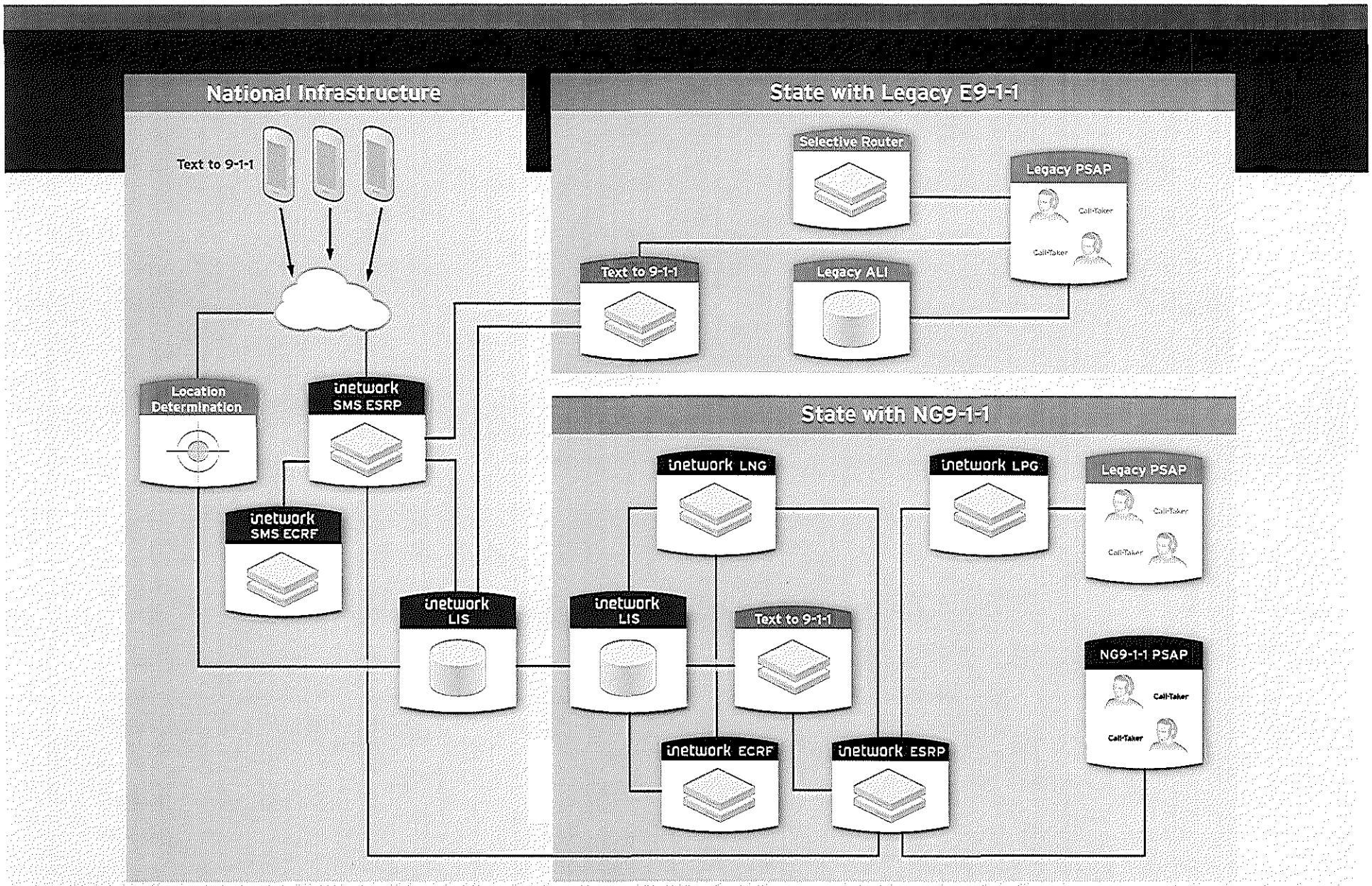
Text to TTY

- ✓ Deliver Text & Location
- ✓ Accommodate all PSAPs regardless of NG9-1-1 readiness
- ✓ Require minimal investment by Wireless Carriers
- ✓ Enable both integrated and "Over the Top" Texting
- ✓ Nationwide coverage on day 1
- ✓ Natural evolution to NG9-1-1


National Infrastructure
State with Legacy E9-1-1
State with NG9-1-1
Text to 9-1-1
National text to TTY
Internet Gateway
Selective Router
Legacy ALI
Legacy PSAP
Call-Taker
Call-Taker
Location Determination
inetwork SMS ESRP
inetwork SMS ECRF
inetwork LIS
inetwork LIS
inetwork LNG
inetwork LPG
Legacy PSAP
Call-Taker
Call-Taker
NG9-1-1 PSAP
Call-Taker
Call-Taker
inetwork ECRF
inetwork ESRP

Text Delivery Via Internet

- ✓ Deliver Text & Location
- ✓ Accommodate all PSAPs regardless of NG9-1-1 readiness
- ✓ Require minimal investment by Wireless Carriers
- ✓ Enable both integrated and "Over the Top" Texting
- • Nationwide coverage on day 1
- ✓ Natural evolution to NG9-1-1


National Infrastructure
Text to 9-1-1
Location Determination
inetwork SMS ESRP
inetwork SMS ECRF
inetwork LIS
State with Legacy E9-1-1
Selective Router
Legacy PSAP
Call-Taker
Call-Taker
Text to 9-1-1
Legacy ALI
State with NG9-1-1
inetwork LNG
inetwork LPG
Legacy PSAP
Call-Taker
Call-Taker
inetwork LIS
Text to 9-1-1
NG9-1-1 PSAP
Call-Taker
Call-Taker
inetwork ECRF
inetwork ESRP

inetwork's commitment

- We're committed, as a stand-alone provider or in collaboration with other organizations, to making Text to 9-1-1 a reality in the near term.
- We'll work to accelerate deployment text to 9-1-1 as an integral part of our NG9-1-1 call routing efforts.